UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,275	03/06/2006	Robert Mark Porter	282545US8XPCT	1131

22850 7590 04/15/2011

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
CHEN, CHIA WEI A	

ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
04/15/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/537,275	PORTER ET AL.	
	Examiner	Art Unit	
	CHIA-WEI A. CHEN	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-50 and 54-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-50 and 54-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 29-50 and 54-58 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 29, 32-39, 43, 46-50, and 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts (US 6,593,956) in view of Hanna (US 6,714,665), further in view of Takagi (US 2003/0085997).

Claim 29, Potts teaches a video camera arrangement, in Fig. 3, comprising:

an image capture device (camera 14) having an associated lens (a lens is inherent in a camera) with an adjustable focus and a zoom setting (col. 6, lines 21-23);

a face detector (video face location module 102) for detecting human faces in images captured by the image capture device and for generating face data identifying detected occurrences of faces in the captured images (video face location module 102 analyzes video signals 24 to detect faces in a single video frame; col. 7, lines 59-61), the face detector being responsive to a zoom setting to obtain an expected face size within the captured images (It is inherent that the face locator detects a face based on the capture image frame which is, in turn, determined by the focus, zoom, or aperture of the optical system of the camera);

a data handling medium by which data representing the captured images is transmitted and/or stored, the data handling medium comprising a storage medium for storing the captured images (video frames 24 are stored as digital data in a memory storage unit; col. 7, lines 47-49) and a metadata store for storing metadata associated with the captured images (track files that correspond to detected faces and stores parameters for that face, as well as track pan, tilt, range values of the camera; col. 12, lines 44, 50-52), the metadata including the face data generated by the face detector and the zoom setting; and

a processor for generating data to be transmitted or stored by the data handling medium in dependence on the detection of faces in the captured images (processor in col. 6, line 67-col. 7, line 10; see also: coder/decoder 30 that compresses the audio and video signals and supplies the signals to a network interface 40 which transmits the signals across a telecommunication network 42; col. 6, lines 54-60),

but Potts does not expressly teach a face detector configured to detect faces at a plurality of different image scales, and (2) receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of facial features from the video camera to calculated an expected size, and (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size. Potts also does not expressly teach that the metadata associated with the captured image includes the lens focus and the zoom setting.

Hanna teaches a face detector configured to detect faces at a plurality of different image scales (The imagers can detect features “within certain depths;” col. 15, lines 60-62. That is, at different depths, images taken by the imagers have different magnitudes of zoom and are therefore scaled differently), and (2) receiving a lens focus and a zoom setting from the image

capture device (The zoom/depth coordinate z and focus F parameters (among many other parameters) of the camera are used to determine a facial feature; see col. 6, lines 43-59) to (a) determine a distance of facial features from the video camera to calculated an expected size (See Fig. 24B, especially col. 26, line 33-col. 27, line 48, summarized herein: The distance of a user from the system can be determined based on the distance between specularities on a user's eye. The distance between specularities on a user's eyes can be inputted into a lookup table to determine the distance between a user and the system. The lookup table's values are generated using the focus and zoom of a plurality of images at a calibration process. Thus, based on the focus and zoom setting of the camera, the distance between the user and the system can be calculated to determine the expected size of the face in the x-direction and the expected height of the user's face (see detail of step 1420 in col. 25, lines 27-49), and (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size ("Each of the templates is scaled in proportion to the size of the face region being processed;" col. 30, lines 34-35).

Although Hanna teaches that the detected feature is a facial feature, (specifically a user's eyes), it would have been obvious to a person having ordinary skill in the art to have applied the feature detection and expected size determination to any other object (e.g., a barcode or a license plate; see col. 63, lines 1-15 and 36-49), including a human face.

It would have been obvious to a person having ordinary skill in the art to have used the teaching of the face size and distance detection of Hanna with the teaching of Potts in order to identify objects or individuals in a passive way and to capture high resolution images of a

particularly identified object or individual while identification of the object is performed more quickly on lower resolution images. (See col. 64, lines 9-30 of Hanna.)

Takagi teaches that stored metadata associated with the captured image includes the lens focus and the zoom setting (paragraph 0159 and 0166).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of Takagi with that of Potts and Hanna in order to generate and attach information about the properties of the captured data for archival purposes and the like.

Claim 32, Potts further teaches wherein the metadata store comprises:

a storage device external to the camera arrangement (audio and video signals are transmitted via a telecommunication network 42 to a receiving video conference system; col. 6, lines 56-60);

but does not expressly teach a wireless link between the camera arrangement and the storage device.

However, **OFFICIAL NOTICE** is taken that wireless links, i.e., wireless telecommunications networks are well known and expected in the art. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have provided a wireless link between the camera and the receiving storage device in order to remotely access and control the camera in a convenient manner.

Since Applicant has failed to traverse the examiner's assertion that that wireless links, i.e., wireless telecommunications networks are well known and expected in the art, this common knowledge or well-known in the art statement is taken to be admitted prior art.

Claim 33, Potts further teaches:

the face detector (video face location module 102) is operable to detect a probability of a human face being present in each field or frame of the captured video material (Video face location module 102 calculates face segments with spatial luma and temporal luma variances above a predetermined threshold to determine face segments that are likely true images of a face; col. 11, lines 14-17, 34-37 and col. 11, line 65-col. 12, line 7); and

the metadata store is operable to store a representation of at least one face from each contiguous sequence of captured video material, that face being the face having the highest associated probability from the contiguous sequence (Based on the above calculations, the face tracking module 106 updates the track files corresponding to the detected faces and stores parameters for those faces; col. 12, lines 35-45).

Claim 34, Potts further teaches the camera arrangement being a unitary device (See Figs. 1-3).

Claim 35, Potts further teaches the data handling medium being operable to store and/or transmit data representing captured audio material associated with the captured video material (coder/decoder 30 compresses the audio and video signals and supplies the signals to a network interface 40 which transmits the signals across a telecommunication network 42; col. 6, lines 54-60).

Claim 36, Potts further teaches a speech detector (audio source locator 28); and in which the face detector is responsive to a detection of speech in the captured audio material (see claim 55 of Potts).

Claim 37, Potts further teaches two or more associated microphones (microphone array 12), the processor and/or face detector being responsive to audio signals from the microphones to identify a face associated with a current speaker (framing module 116 uses audio information to frame a camera shot on a face of a single speaker or a group of speakers; see col. 19, line 10-15).

Claim 38, Potts further teaches logic, responsive to the face detector (frame locator 116 uses determination made by face locator 102), to derive a subset of at least some of the captured images for storage and/or transmission by the data handling medium (frame locator 116 can frame a camera shot to capture a single speaker or a group of speakers to transmit across the telecommunications network; col. 19, lines 29-31).

Claim 39, Potts further teaches wherein the subset comprises a cropped image containing at least each face detected by the face detector (frame locator 116 frames the camera shot to contain currently detected faces; see col. 19, lines 29-31, 34-37, and 44-52).

Claim 43, Potts further teaches wherein the subset, in respect of a captured image, comprises a cropped image representing a single detected face (frame locator 116 can frame a

camera shot to capture a single speaker to transmit across the telecommunications network; col. 19, lines 29-31).

Claim 46, Potts further teaches logic, responsive to the face detector, to control the lens zoom and/or direction of the image capture device in dependence upon the face data (The results of the face tracking module 106 are used for framing camera shots to track a moving speaker; col. 12, lines 39-43).

Claim 47, Potts teaches a video conferencing arrangement (col. 6, lines 16-23) including the camera arrangement according to claim 35, comprising two or more video conferencing systems (col. 6, lines 59-60), each system arrangement having an associated display arrangement (It is inherent that a video conferencing system include a display to display at least the video data received from the remote participant.), the data handling medium being a transmission medium (telecommunications network 42) linking the two or more video conferencing systems.

Although Potts does not explicitly teach that both video conferencing systems are of the camera arrangement according to claim 35, it would have been obvious to a person having ordinary skill in the art to have used the camera arrangement taught by Potts to track moving speakers at both ends of the video conferencing.

Claim 48, Potts in view of Hanna and Takagi teaches a camera arrangement according to claim 35, but does not expressly teach wherein the camera arrangement is used for security monitoring.

However, it would have been obvious to a person having ordinary skill in the art at the time of invention to have recognized that the camera arrangement of Potts observes and follows a person (col. 12, lines 39-42) and could similarly be used as a security monitoring device to track a moving person in a given area.

Claim 49, Potts teaches a method of operating a video camera arrangement having an image capture device (camera 14) with an associated lens (a lens is inherent in a camera) having an adjustable focus and a zoom setting (col. 6, lines 21-23), a storage medium for storing captured images (video frames 24 are stored as digital data in a memory storage unit; col. 7, lines 47-49) and a metadata store for storing metadata associated with the captured video material (track files that correspond to detected faces and stores parameters for that face, as well as track pan, tilt, range values of the camera; col. 12, lines 44, 50-52), the method comprising the steps of:

detecting human faces the captured images and generating face data identifying detected occurrences of faces in the captured images (video face location module 102 analyzes video signals 24 to detect faces in a single video frame; col. 7, lines 59-61), the face detecting responsive to a zoom setting to determine a distance of a face from the video camera and to obtain an expected face size within the captured images (It is inherent that the face locator detects a face based on the capture image frame which is, in turn, determined by the focus, zoom, or aperture of the optical system of the camera); and

generating data representing the captured images for storage and/or transmission, in dependence on the face data generated by the face detector (coder/decoder 30 compresses the

audio and video signals and supplies the signals to a network interface 40 which transmits the signals across a telecommunication network 42; col. 6, lines 54-60), wherein

metadata stored with the captured images includes the face data generated by the face detecting and the zoom setting (track files that correspond to detected faces and stores parameters for that face, as well as track pan, tilt, range values of the camera; col. 12, lines 44, 50-52),

but Potts does not expressly teach a face detector configured to detect faces at a plurality of different image scales, and (2) receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of facial features from the video camera to calculated an expected size, and (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size. Potts also does not expressly teach that the metadata associated with the captured image includes the lens focus and the zoom setting.

Hanna teaches a face detector configured to detect faces at a plurality of different image scales (The imagers can detect features "within certain depths;" col. 15, lines 60-62. That is, at different depths, images taken by the imagers have different magnitudes of zoom and are therefore scaled differently), and (2) receiving a lens focus and a zoom setting from the image capture device (The zoom/depth coordinate z and focus F parameters (among many other parameters) of the camera are used to determine a facial feature; see col. 6, lines 43-59) to (a) determine a distance of facial features from the video camera to calculated an expected size (See Fig. 24B, especially col. 26, line 33-col. 27, line 48, summarized herein: The distance of a user from the system can be determined based on the distance between specularities on a user's eye. The distance between specularities on a user's eyes can be inputted into a lookup table to

determine the distance between a user and the system. The lookup table's values are generated using the focus and zoom of a plurality of images at a calibration process. Thus, based on the focus and zoom setting of the camera, the distance between the user and the system can be calculated to determine the expected size of the face in the x-direction and the expected height of the user's face (see detail of step 1420 in col. 25, lines 27-49), and (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size ("Each of the templates is scaled in proportion to the size of the face region being processed;" col. 30, lines 34-35).

Although Hanna teaches that the detected feature is a facial feature, (specifically a user's eyes), it would have been obvious to a person having ordinary skill in the art to have applied the feature detection and expected size determination to any other object (e.g., a barcode or a license plate; see col. 63, lines 1-15 and 36-49), including a human face.

It would have been obvious to a person having ordinary skill in the art to have used the teaching of the face size and distance detection of Hanna with the teaching of Potts in order to identify objects or individuals in a passive way and to capture high resolution images of a particularly identified object or individual while identification of the object is performed more quickly on lower resolution images. (See col. 64, lines 9-30 of Hanna.)

Takagi teaches that stored metadata associated with the captured image includes the lens focus and the zoom setting (paragraph 0159 and 0166).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of Takagi with that of Potts and Hanna in order to generate and attach information about the properties of the captured data for archival purposes and the like.

Claims 50 and 54, Potts teaches a computer readable storage medium have program code that when executed performs a method according to claim 49 (modules can be implemented by an appropriately programmed processor; col. 6, line 65-col. 7, line 3). It is inherent in the system of Potts that the instructions must be transferred (read) from the program storage memory to the processor in order to be executed (See also col. 6, line 65-col. 7, line 3).

Although Potts does not expressly teach a network for transmitting program code for execution, **OFFICIAL NOTICE** is taken that networks for transmitting data are well known and expected in the art. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have provided a network to transmit data (e.g., code) to be executed.

Claim 55, Potts further teaches wherein the face detector is further responsive to a break between contiguous video shots to reset a face-tracking filter between the contiguous video shots (For each start of a new camera move, the track files for tracking faces are initialized to begin a new set of tracking operations. See Fig. 9 and col. 12, line 60-col. 13, line 14.).

Claim 56 is analyzed and rejected as the method claim performing the steps of claim 55.

Claim 57, Potts teaches a video camera arrangement, in Fig. 3, comprising:

an image capture device (camera 14) having an associated lens (a lens is inherent in a camera) with an adjustable focus and a zoom setting (col. 6, lines 21-23);

a face detector (video face location module 102) for detecting human faces in images captured by the image capture device and for generating face data identifying detected occurrences of faces in the captured images (video face location module 102 analyzes video signals 24 to detect faces in a single video frame; col. 7, lines 59-61), the face detector being responsive to a zoom setting to obtain an expected face size within the captured images (It is inherent that the face locator detects a face based on the capture image frame which is, in turn, determined by the focus, zoom, or aperture of the optical system of the camera);

a data handling medium by which data representing the captured images is transmitted and/or stored, the data handling medium comprising a storage medium for storing the captured images (video frames 24 are stored as digital data in a memory storage unit; col. 7, lines 47-49) and a metadata store for storing metadata associated with the captured images (track files that correspond to detected faces and stores parameters for that face, as well as track pan, tilt, range values of the camera; col. 12, lines 44, 50-52), the metadata including the face data generated by the face detector and the zoom setting; and

a processor for generating data to be transmitted or stored by the data handling medium in dependence on the detection of faces in the captured images (processor in col. 6, line 67-col. 7, line 10; see also: coder/decoder 30 that compresses the audio and video signals and supplies the signals to a network interface 40 which transmits the signals across a telecommunication network 42; col. 6, lines 54-60),

but Potts does not expressly teach a face detector configured to detect faces at a plurality of different image scales, and (2) receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of facial features from the video camera to calculated

an expected size, and (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size. Potts also does not expressly teach that the metadata associated with the captured image includes the lens focus and the zoom setting.

Hanna teaches a face detector configured to detect faces at a plurality of different image scales (The imagers can detect features “within certain depths;” col. 15, lines 60-62. That is, at different depths, images taken by the imagers have different magnitudes of zoom and are therefore scaled differently), and (2) receiving a lens focus and a zoom setting from the image capture device (The zoom/depth coordinate z and focus F parameters (among many other parameters) of the camera are used to determine a facial feature; see col. 6, lines 43-59) to (a) determine a distance of facial features from the video camera to calculated an expected size (See Fig. 24B, especially col. 26, line 33-col. 27, line 48, summarized herein: The distance of a user from the system can be determined based on the distance between specularities on a user’s eye. The distance between specularities on a user’s eyes can be inputted into a lookup table to determine the distance between a user and the system. The lookup table’s values are generated using the focus and zoom of a plurality of images at a calibration process. Thus, based on the focus and zoom setting of the camera, the distance between the user and the system can be calculated to determine the expected size of the face in the x-direction and the expected height of the user's face (see detail of step 1420 in col. 25, lines 27-49), and (b) calculate face detection weighting factors for the image scales to variably weight the image scales for face detection within the captured images based on the expected face size (Blobs of pixels are compared to thresholds, i.e., weighting factors, to determine a valid face. The detection of blobs is based on

the number of pixels in the expected-size-of-face window, i.e., the face detection parameters are based on the expected face size obtained in step 1420b. See col. 25, lines 38-65).

Although Hanna teaches that the detected feature is a facial feature, (specifically a user's eyes), it would have been obvious to a person having ordinary skill in the art to have applied the feature detection and expected size determination to any other object (e.g., a barcode or a license plate; see col. 63, lines 1-15 and 36-49), including a human face.

It would have been obvious to a person having ordinary skill in the art to have used the teaching of the face size and distance detection of Hanna with the teaching of Potts in order to identify objects or individuals in a passive way and to capture high resolution images of a particularly identified object or individual while identification of the object is performed more quickly on lower resolution images. (See col. 64, lines 9-30 of Hanna.)

Takagi teaches that stored metadata associated with the captured image includes the lens focus and the zoom setting (paragraph 0159 and 0166).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of Takagi with that of Potts and Hanna in order to generate and attach information about the properties of the captured data for archival purposes and the like.

Claim 58 is analyzed and rejected as a method for operating the apparatus of claim 57.

4. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts (US 6,593,956) in view of Hanna (US 6,714,665) and Takagi (US 2003/0085997), further in view of Patton (US 6,408,301).

Claim 30, Potts in view of Hanna and Takagi teaches a camera arrangement according to claim 29, but does not expressly teach that the metadata store is arranged to store metadata on the same storage medium as the captured video material.

Patton teaches that the metadata store is arranged to store metadata (metadata associated with a captured image or motion sequence) on the same storage medium (DVD disk 16) as the captured video material (See Fig. 12 and col. 6, lines 42-47 and 60-65).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of Patton with that of Potts in view of Hanna and Tagaki in order to provide a system capable of automatically indexing and sorting a plurality of images for a faster and more intuitive user access. (See col. 1, lines 39-67 of Patton.)

Claim 31, Patton teaches that the metadata store comprises a removable storage device connectable to the camera arrangement (the image data is captured on removable media; see col. 3, lines 54-55).

5. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts (US 6,593,956) in view of Hanna (US 6,714,665) and Takagi (US 2003/0085997), further in view of Edanami (US 6,297,846).

Claim 40, Potts in view of Hanna and Takagi teaches a camera arrangement according to claim 38, but does not teach that subset, in respect of a captured image, comprises a number of

cropped images equal to the number of detected faces in that captured image, each cropped image representing one detected face.

Edanami teaches that a captured image (Fig. 19a) comprises a number of cropped images (three cropped images representing of Fig. 19C, D, E) equal to the number of detected faces in that captured image, each cropped image representing one detected face (Fig. 19) (See col. 20, lines 3-10).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of Edanami with that of Potts in view of Hanna and Tagaki in order to allow a remote user to choose a particular person to focus on by clicking his/her image in a group shot. This allows a person to more clearly focus on the current speaker or another participant at the video conferencing location. (See col. 20, lines 6-10 of Edanami.)

Claim 41, Edanami teaches a user control for selecting display properties of each of the cropped images (operator can choose a particular person to focus on; col. 20, lines 8-10).

Claim 42, Potts teaches that the data handling medium is a transmission medium (telecommunication network 42), but does not expressly teach that the user control relates to a remote node of the transmission medium.

Edanami teaches wherein the display remote from the camera and the captured scene can be manipulated by the user (col. 20, lines 6-10).

It would have been obvious to a person having ordinary skill in the art to have used the teaching of the remote operator of Edanami with the teaching of video conferencing across the

telecommunication network of Potts in order to view onscreen the desired remote participant in a videoconferencing system. (See col. 18, lines 33-42 of Edanami.)

6. Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts (US 6,593,956) in view of Hanna (US 6,714,665) and Takagi (US 2003/0085997), further in view of Kan (US 2003/0035479).

Claim 44, Potts in view of Hanna and Tagaki teaches a camera arrangement according to claim 35, but does not expressly teach: comprising logic to alter a degree of data compression applied to portions of the image in dependence upon whether a face has been detected at those portions.

Kan teaches logic to alter a degree of data compression applied to portions of the image in dependence upon whether a foreground has been detected at those portions (A high compression rate is used in the still background while lower compression rate is used in the moving foreground; paragraph 0008).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the teaching of Kan with that of Potts in view of Hanna and Tagaki in order to reduce amount of data compressed and transferred (See paragraph 0008 of Kan.).

Claim 45, Kan teaches that an apparatus operable to apply a harsher data compression to portions of a captured image not detected to contain a foreground (see paragraph 0008). It would

have been obvious to a person having ordinary skill in the art to have recognized that the face of a moving speaker (taught by Potts) is the foreground of a captured image.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Center, Julian L. JR. et al.	US 20020113862 A1
Tian, Ying-Li et al.	US 20030133599 A1
Umeda; Yoshihito et al.	US 6606458 B2
Giefing; Gerd-Jurgen et al.	US 5864363 A
Kondo, Kenji et al.	US 20030118217 A1
Matsugu, Masakazu et al.	US 20020181799 A1
Milovanovic, Rajko et al.	US 20010055058 A1

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-WEI A. CHEN whose telephone number is (571)270-1707. The examiner can normally be reached on Monday - Friday, 7:30 - 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin Ye/
Supervisory Patent Examiner, Art Unit 2622

/Chia-Wei A Chen/

Examiner, Art Unit 2622